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PRE-APPEAL BRIEF REQUEST FOR REVIEW

Docket Number (Optional)

BAO-39

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on December 16, 2005

Signature Marty Balko

Typed or printed name Marty Balko

Application Number

10/727,709

Filed

December 4, 2003

First Named Inventor

Zhenan Bao

Art Unit

2814

Examiner

Wat Sing Louie

Applicant requests review of the final rejection in the above-identified application. No amendments are being filed with this request.

This request is being filed with a notice of appeal.

The review is requested for the reason(s) stated on the attached sheet(s).

Note: No more than five (5) pages may be provided.

I am the

applicant/inventor.

assignee of record of the entire interest.
See 37 CFR 3.71. Statement under 37 CFR 3.73(b) is enclosed.
(Form PTO/SB/96)

attorney or agent of record.
Registration number _____

attorney or agent acting under 37 CFR 1.34.

Registration number if acting under 37 CFR 1.34 47,500

Ron Corbett

Signature

Ronald J. Corbett

Typed or printed name

972-480-8800

Telephone number

December 16, 2005

Date

NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required.
Submit multiple forms if more than one signature is required, see below*.



*Total of 1 forms are submitted.

This collection of information is required by 35 U.S.C. 132. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11, 1.14 and 41.6. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Mail Stop AF, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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DOCKET NO. BAO-39

DEC 16 2005

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

Zhenan Bao

Serial No.: 10/727,709

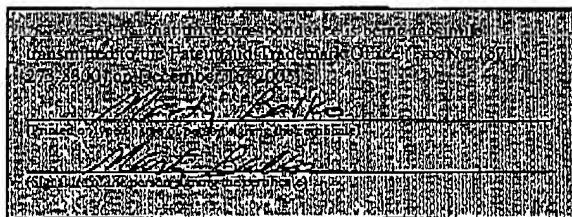
Filed: December 4, 2003

For: ORGANIC FIELD EFFECT TRANSISTORS WITH ACTIVE CHANNELS
FORMED OF DENSIFIED LAYERS

Group No.: 2814

Examiner: Wai Sing Louie

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450



Sir:

PRE-APPEAL BRIEF REQUEST FOR REVIEW

The Applicants have carefully considered this application in connection with the Examiner's Final Rejection mailed November 29, 2005, and respectfully request a pre-appeal brief review of this application in view of the following remarks.

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REMARKS

The Applicant originally submitted Claims 1-20 in the application, and in a prior response, elected to prosecute Claims 1-11. Accordingly, Claims 1-11 are currently pending in the application.

I. Rejection of Claim 1 under 35 U.S.C. §102

The Examiner has rejected Claim 1 under 35 U.S.C. §102(e) as being anticipated by U.S. Patent No. 6,777,529 to Ong *et al.* ("Ong"). In a telephone conversation with the Examiner on September 13, 2005 the Examiner confirmed that the reference to Zhang *et al.*, on Page 2 of the Examiner's Detailed Action, was a typographical error.

Claim 1, among other things, recites that said channel comprises a densified layer of organic molecules.

The Examiner acknowledges that Ong does not specifically state that the channel comprises a densified layer of organic molecules (Examiner's Detailed Action Page 2 Lines 20 to 21). The Examiner, however, then goes on to assert that,

[S]ince Zhang et al. [sic] disclose the claimed structure and the same organic compound, polythiophene as disclosed in the instance specification, it is clear that such a material results in the densified layer of organic molecules . . . and is thus an inherent feature of the claimed semiconductor device. (Examiner's Detailed Action, Page 2 Line 23 to Page 3 Line 3).

The Examiner further states,

Ong et al. disclose the polythiophene channel layer 12 has an average molecular weight of 2,000 to 100,000 (col. 4, lines 15-46). This is a densified organic channel layer. (Examiner's Detailed Action Page 5, Lines 5-7)

As applied by the Examiner, Ong does not disclose each and every element of the claimed invention and as such, is not anticipating reference of Claim 1. In particular, the Applicant does not

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admit that Ong's polythiophene semiconductor layer would inherently be a densified layer of organic molecules, as implied by the Examiner in the above-cited portion of the Office Action.

Concerning the requirements of rejections based on inherency, the MPEP ¶ 2112 IV states that the Examiner must provide rationale or evidence tending to show inherency. Citing *In re Rijckaert*, 9 F.3d 1531, 1534, 28 USPQ2d 1955, 1957 (Fed. Cir. 1993), the MPEP ¶ 2112 IV further states,

The fact that a certain result or characteristic may occur or be present in the prior art is not sufficient to establish the inherency of that result or characteristic.

Emphasis in original. The MPEP ¶ 2112 IV goes on to quote *Ex parte Levy*:

"In relying upon the theory of inherency, the examiner must provide a basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristic necessarily flows from the teachings of the applied prior art." *Ex parte Levy*, 17 USPQ2d 1461, 1464 (Bd. Pat. App. & Inter. 1990) (emphasis in original)

As the Applicant has argued in a previous response mailed September 14, 2005, the cited portions of Ong do not discuss the density of Ong's polythiophene semiconductor layer, or state that the density of organic molecules on a substrate surface has been increased. Indeed, the cited portions of Ong do not provide any suggestion of a process that would have densified the molecules in the layer. Moreover, the Examiner has presented no factual or technical reasons why a channel layer made of polythiophene molecules having an average molecular weight of 2,000 to 100,000 would inherently be a densified layer as in claim 1.

As disclosed by the Applicant in the specification:

[0018] Herein, a layer of organic molecules 150 is referred to as densified if the layer 150 is physically strained parallel to the substrate-surface 110 on which the layer 150

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is formed. In a densified layer 150, the strain is a force of expansion that results from an over-density of organic molecules. A densified layer 150 has a strain, because the molecular over-density has not relaxed to a lower value that would be found in a bulk layer of the same composition. The densified layer 150 is too thin for complete relaxation of the strain, which is caused by the over-density of molecules at the substrate-surface. One way to form a densified layer of molecules 150 involves depositing the molecules on a stretched substrate 105 and then, allowing the substrate 105 to unstretch. Such a process can produce an over-density of molecules that would not have occurred if the layer had been formed directly on an unstretched substrate.

The Applicant submits that the Examiner has presented no evidence that a channel comprising a densified layer of organic molecules is an inherent characteristic that necessarily flows from the teachings of Ong. For example, the Examiner has not shown that Ong teaches a semiconductor layer that is physically strained to the substrate surface, or that Ong has disclosed any steps that would inherently result in a densified layer of organic molecules. As pointed out by the Federal Circuit in *In re Rijckaert*, the fact that a certain characteristic may occur or be present in the prior art is not sufficient to establish the inherency of that characteristic.

For these reasons, the Applicant respectfully requests that the Review Panel remove the rejection of Claim 1 under 35 U.S.C. §102(e).

II. Rejection of Claims 2-11 under 35 U.S.C. §103

The Examiner has rejected Claims 2-5 and 8-11 under 35 U.S.C. §103(a) as being unpatentable over Ong. The Examiner has also rejected Claims 6-7 under 35 U.S.C. §103(a) as being unpatentable over Ong in view of U.S. Patent No. 6,713,389 to Speakman ("Speakman").

The Applicant respectfully disagrees, because as discussed in section I above, the cited sections of Ong do not teach or suggest a densified layer of organic molecules as recited by Claim

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1. The Examiner has not cited Speckman in the rejection of Claim 1 and does not use this reference to support a teaching or suggestion of a densified layer of organic molecules.

The Applicant therefore respectfully maintains that because Ong fails to establish a *prima facie* case of obviousness of Claim 1, this reference also cannot establish a *prima facie* case of obviousness of dependent Claims 2-11, which include all the elements of the independent claim. The Applicant therefore respectfully requests the Review Panel to remove the rejection of Claims 2-11.

III. Conclusion

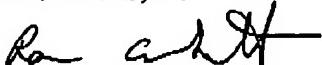
In view of the foregoing amendment and remarks, the Applicant now sees all of the Claims currently pending in this application to be in condition for allowance and therefore earnestly solicits a timely Notice of Allowance for Claims 1-11.

The Applicant requests the Reviewers to telephone the undersigned attorney of record at (972) 480-8800 if such would further or expedite the prosecution of the present application.

The Commissioner is hereby authorized to charge any fees, credits or overpayments to Deposit Account 08-2395.

Respectfully submitted,

HITT GAINES, PC


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Dated: December 16, 2005

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